

Ship Feb. 24

# Work Order ID 80190

\*80190\*

Page 1

February-13-12 3:07:00 PM

Item ID: D3193-041

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Support Bracket Assembly

Start Date: 2/13/12 Start Qty: 6.00

\*6\*

Cust Item ID:

Required Date: 2/24/12 Req'd Qty: 6.00

\*6\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3193

Rev C

100

0.00

\*100\*

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks: 3.500" x 2.500" x 5.900" long Bar

OK 12/02/14

6

2

110

0.00

\*110\*

HAAS CNC VERTICAL MACHINING #1

HAAS I

Memo

0.00

HAAS CNC vertical machine #1

1-Machine as per Folio FA374 and Dwg D3193 Identify as D3193-12-Deburr and Tumble

Re 12.2.12

6

2

120

0.00

\*120\*

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

Re 12.2.12

6

2

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**\*80190\***

Page 2

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Reference:

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Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC8- Inspect parts - second check

0.00

**\*130\***

QC

Memo

0.00

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00

**\*140\***

HandFinish

Memo

0.00

Hand Finishing

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

**\*150\***

Powdercoat

Memo

0.00

Powder Coating

START TIME:

FINISH TIME:

OVEN TEMPERATURE:

3200 F

4:00

M11A480

SL 12-02-18

6 SPB Feb. 21/2012

6X4 m-l 12/02/21

**Work Order ID 80190****\*80190\***

Page 3

February-13-12 3:07:00 PM

Item ID: D3193-041

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Support Bracket Assembly

Start Date: 2/13/12 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 2/24/12 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

QC3- Inspect Part Finish

0.00

**\*160\***

QC

Memo

0.00

Quality Control

6 12/22/12

170

Small Fab

0.00

**\*170\***

Small Fab

Memo

0.00

Small Fab

Assemble D3193-041 as per Dwg D3193

E 12/22/12 6

180

QC5- Inspect part completeness to step on W/O

0.00

**\*180\***

QC

Memo

0.00

Quality Control

12 02 22 6

# Picklist Print

February-13-12 3:06:59 PM

Page 1

Work Order ID: 80190  
 Parent Item: D3193-041  
 Parent Item Name: Support Bracket Assembly

Start Date: 2/13/12  
 Start Qty: 6.00

Required Date: 2/24/12  
 Required Qty: 6.00

Comments: IPP Rev:A New Issue 05-11-05 JLM  
 IPP Rev:B Change Rivet Length 07-03-19 JLM  
 IPP Rev: C Step 13 added 08.12.18 KJ Verified by:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B2.500X03.500 6061-T6 Bar 2.50 x 3.50		Purchased	No			170	f	9.6000	0.491	3.1010526			

Location	Loc Qty	Loc Code
MAT008	9.6	
→ 113403	1.6	
118071	8	

MS20426AD3-7 RIVET		Purchased	No			170	Each	6,145.0000	8	48			
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Location	Loc Qty	Loc Code
ST316	6145	
17694	6145	

MS21073L4 NUTPLATE		Purchased	No			100	Each	77.0000	4	24			
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Location	Loc Qty	Loc Code
ST302	77	
112679	27	
112724	50	

Handwritten notes and calculations:

- OR 12/02/14
- 1.6 + 2.66 = 3.66
- 48 + 1.22 = 49.22
- 12.2.17
- EP 12/02/02
- EP 12/02/02
- 24

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 8090
<b>Description:</b> Support Bracket		<b>Part Number:</b> D3193-1
<b>Inspection Dwg:</b> D3193	<b>Rev:</b> C	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.435	+/-0.010	3.435	/		29.02	
2.012	+/-0.010	2.013	/			
1.200	+/-0.010	1.209	/			
2.006	+/-0.010	2.005	/			
R0.125	+/-0.010	R.125	/			
2.435	+/-0.005	2.435	/			
0.281	+/-0.005	.281	/			
0.264	+/-0.010	.264	/			
5.878	+/-0.010	5.879	/			
4.878	+/-0.005	4.878	/			
2.550	+/-0.010	2.549	/			
15°	+/-0.5°	15°	/			
0.260	+/-0.010	.261	/			
R0.05	+/-0.030	.50	/			
Ø0.266	+0.006/-0.001	.269	/			
Ø0.098	+0.004/-0.001	.098	/			
Ø0.180 x 100°	+0.005/-0.001	-178	/			
0.850	+/-0.010	.850	/			
R0.125	+/-0.010	2.125	/			
0.255	+/-0.010	.256	/			
2.812	+/-0.010	2.812	/			

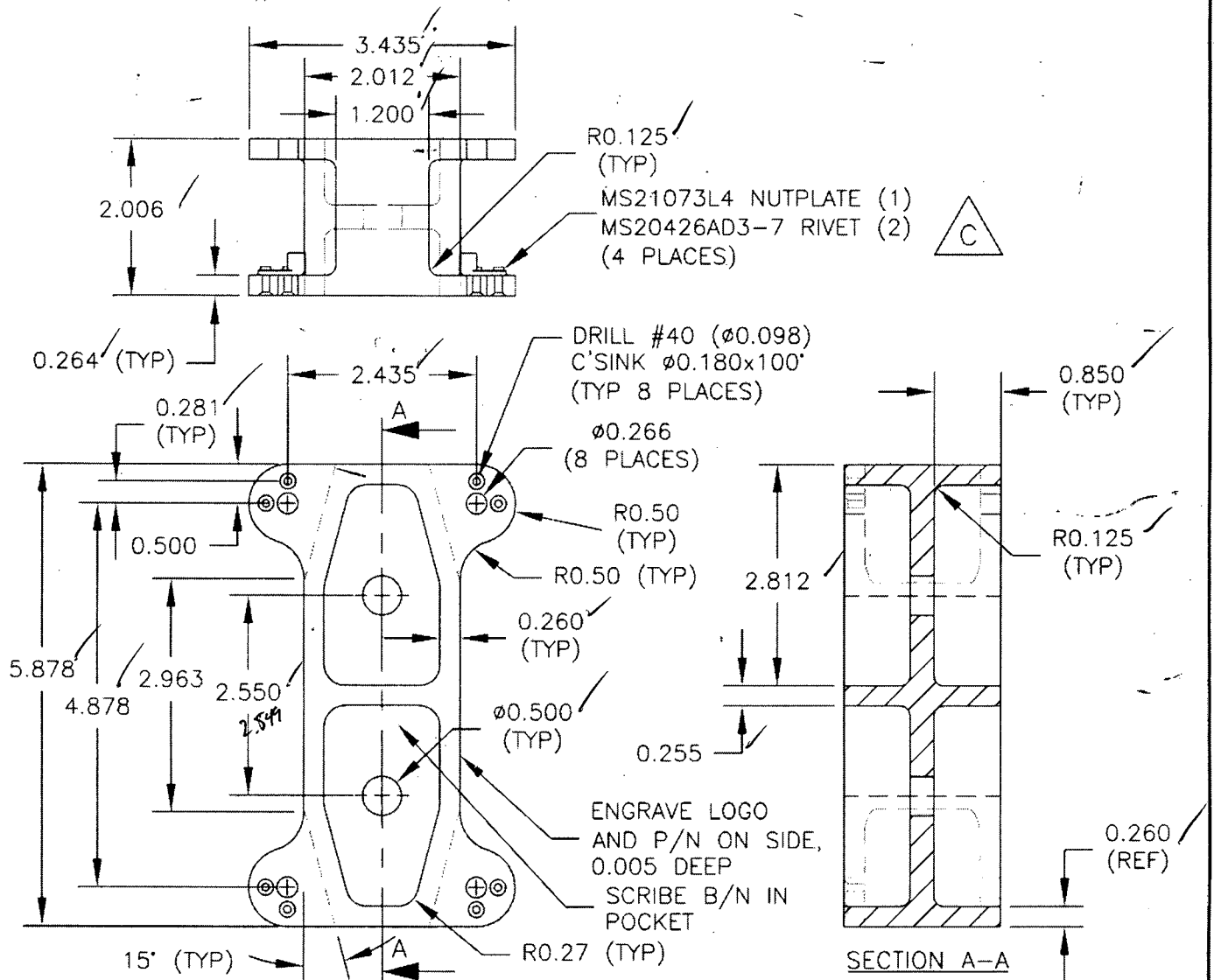
<b>Measured by:</b> R	<b>Audited by:</b> J	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 12.2.16	<b>Date:</b> 12-02-18	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	08.02.28	New Issue P/O D3193-041	KJ/DD	
B	09.05.04	R0.50 was R0.050	KJ/DD	



DESIGN CP	DRAWN BY JH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED JH	DRAWING NO. D3193	REV. C SHEET 1 OF 1
DATE 05.09.29		TITLE SUPPORT BRACKET ASSEMBLY	SCALE 1:2
A	03.06.09	NEW ISSUE	
B	03.12.22	MANUFACTURED BY DART	
C	05.09.29	MS20426AD3-7 WAS MS20426AD3-5	

RELEASED  
15-01-30



D3193-041 SUPPORT BRACKET ASSEMBLY (D3193-1 SUPPORT BRACKET)

- 1) MATERIAL: 6061-T6 ALUMINUM (QQ-A-225/8 OR QQ-A-200/8)  
(REF DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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00190

5.888

# Dart Aerospace Ltd

W/O: 80190		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D 3193-041 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
2-2-17		Holes deviate off course because of broken center drill, center drill broke because collet damaged. (x2)	JP 12.2.17 PS1042	- Replace collet - Scrap + replace parts	JP 2-2-17	JK 12-02-18	JP 12.02.18 PS1042	MJ 12.02.18

NOTE: Date & initial all entries